

DURA-MIX®

A concrete driveway represents an investment that should last a lifetime. Certain guidelines must be followed to assure that the investment fulfills all the owner's expectations. This information should be studied carefully before attempting the actual site work. We suggest construction be done between May 1 and September 15.

5 STRAIGHTFORWARD STEPS ALL ARE IMPORTANT

1. Determine the required thickness, plan joints.

Cars only —	100 mm
Cars and light trucks —	125 mm
Occasional heavy trucks — (rarely necessary)	150 mm

- Reinforcement is optional depending on local conditions.
- Joints — minimum 25 mm (1 inch) deep with maximum 3 meter spacing (10 feet).

2. Prepare the subgrade and form the driveway area.

- Concrete should be placed directly on the subgrade, if possible.
- Sometimes granular fill will have to be used as a leveler or to bring over- excavated areas up to grade.
 - Top of subgrade = bottom of slab. Therefore, determine slab thickness first.
 - Subgrade should be uniformly compacted, replace extra-solid or soft spots.
 - Slope away from building adequately. DO NOT use frozen material as a subgrade — let it thaw completely before concreting.
- Isolate abutting construction (buildings, sidewalks) with asphalt-impregnated fibreboard (when necessary).
 - Use stiff wood forms and keep them in line by nailing to pegs not more than 1 m apart. Top of pegs should be flush with top of form, all at finish grade.
- Form curves with thin plywood, using pegs to hold the line true.
- Oil or wet formwork shortly before ordering concrete — not the day before.

3. Order the concrete, but be ready to use it.

Ask your concrete supplier how much you need.

Strength — Ask for DURA-MIX® don't settle for less.

Air-entrainment — from 5%-8%. An absolute must for durability.

Slump — Preferably 80 mm but not greater than 100 mm. Adding water to increase the slump past 100 mm will

decrease the concrete durability greatly.

- Make sure adequate labour is available to do the job. For large jobs or on hot, dry days more labour is required.

- Have a roll of plastic sheeting handy in case of very hot windy or rainy conditions.

4. Place and finish the concrete.

- Dampen the subgrade before placing the concrete. If water isn't available, use the hose on the back of the concrete truck.

- Use a straight board on edge to strike off the concrete even with the top of the forms (Screeding).

- Tap forms to consolidate edges.

- Consolidate and smooth the concrete with a long-handled bullfloat. This work should be completed before water appears on the surface of the concrete.

WAIT — until bleedwater evaporates and concrete begins setting up before finishing.

- Float with either a wood or magnesium float.

- Final finish should give a non-skid surface. This can be done with a burlap drag or broom finish.

- If you are placing the concrete on a hot day, evaporation will be rapid. To prevent premature cracking, cover it will disappear quickly when uncovered.

- Edging and grooving should also be done at this time (minimum 25 mm cut).

- **DO NOT ALLOW** power floats or trowels to be used on the slab. This extra finishing is not required and will reduce the durability of the slab. Scaling will result.

5. Curing and Jointing

- Curing means retaining moisture in the slab so it will become more durable.

- Curing should begin as soon as concrete has been finished.

- Curing should continue as long as possible, but a minimum of 7 days is recommended (28 days of curing at

20±5C temperature is required to achieve the designed strength.

- Water curing gives the best cure. Either soaker hoses, wet burlap, waterproof paper, or

polyethylene sheeting

will keep the surface wet.

• A curing compound, sprayed on according to the manufacturers specification may be used between May 1 and

September 15.

• If concrete is poured after September 15 use proper cold weather concreting procedures.

• Do not use salt or ammonium-based deicers (fertilizer).

• Also a concrete sealer applied a minimum of 28 days after placing the driveway may be used for protection and further curing.

Joints:

• Control joints are either:

1) Grooved into the slab while the concrete is still soft or

2) Sawcut 4-18 hours after the concrete has set. A power saw with a carborundum blade will do the job.

• Joints should not be more than 3 meters apart and panels should be planned to be square, if possible. Cut the joints to a depth of 25% of the slab thickness.

SUMMARY

1. Subgrade must be uniform and compact.

2. Concrete - DURA-MIX®, 5-8% air, 80 mm slump.

3. Placing - screed and bullfloat.

4. WAIT - for bleedwater to evaporate off surface.

5. Finish - Float and broom.

6. Cure - for a minimum of 7 days.

7. Cut joints as soon as possible if they have not been done in the fresh concrete.

8. Make sure you receive your DURA-MIX® owner manual and maintenance guide.

9. Seal concrete only after 28 days of curing.